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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/277,335	03/26/1999	DEAN A. KLEIN	MPATENT.053A	3400

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EXAMINER	
PICH, PONNOREAY	
ART UNIT	**PAPER NUMBER**
2135	

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/277,335	KLEIN, DEAN A.	
	Examiner	Art Unit	
	Ponnoreay Pich	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/2/2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 12-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 12-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant amended claims 1, 5, and 7. Claim 11 was cancelled previously by the applicant and claims 15-18 were added in the amendment filed on 7/2/2004. Claims 1-10 and 12-18 are pending. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Docketing

Please note that the application has been redocketed to a different examiner. Please refer all future communications regarding this application to the examiner of record, using the information supplied in the final section of the office action.

Response to Amendment

1. Applicant's arguments with respect to claims 1, 5, and 7 have been considered but are moot in view of the new ground(s) of rejection. The applicant argues that there is no teaching of a cryptographic key wherein the key is derived in part from a received user input in any of the art relied upon by the previous examiner as applied to claims 1, 5, and 7. The examiner acknowledges this as true; however, this limitation raises new issue as applied to claims 1, 5, and 7 by the applicant as part of the amendment submitted on 7/2/2004. These new limitations will be addressed below.

Response to Arguments

1. Applicant's arguments filed 7/2/2004 have been fully considered but they are not persuasive. The applicant states that as per claims 1 and 5, Olarig does not teach encrypting and decrypting data for the device. This point was agreed upon by previous examiner. The applicant then states that "this limitation was also not taught

or suggested by van Rumpt," the secondary reference relied upon by the previous examiner for the rejection of claims 1 and 5. On this point, the examiner would have to disagree with the applicant. The examiner would like to note that van Rumpt (U.S. 5,513,262) specifically stated that his invention related to a "device for enciphering and deciphering with the aid of the DES algorithm data to be written to or read from a hard disk..." (abstract). Enciphering is synonymous with encryption and deciphering is synonymous with decryption.

Claim Rejections - 35 USC § 103

The previous action is incorporated by reference in its entirety. Particularly, the specific indications of various claim elements, which will not be reiterated in this action.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 3-6, 13-14, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olarig et al (U.S. 6,032,257) and van Rumpt et al (U.S. 5,5132,262), herein referred to as Rumpt1, further in view of van Rumpt et al (U.S. 5,231,662), herein referred to as Rumpt2.

As per claim 1:

A previous office action has addressed most of the limitations of claim 1 already. As for the limitations that were not addressed in the previous office action, they were amended onto claim 1 by the applicant and will now be addressed:

Neither Olarig nor Rumpt1 disclose:

a. Receiving user input.
b. Generating a cryptographic key derived at least in part from the received user input.

However, Rumpt2 discloses:

c. Receiving user input (abstract; Fig 1; and col 3, lines 17-59).
d. Generating a cryptographic key derived at least in part from the received user input (Fig 1 and col 3, lines 17-59).

One of ordinary skill at the time the applicant's invention was made would be motivated to combine the teachings of Rumpt2 into the combination system of Olarig and Rumpt1 as it would allow for a different encryption key to be obtained for each sector of a hard disk, which further prevents unauthorized decipherment (col 4, lines 1-5).

As per claim 5:

A previous office action has addressed most of the limitations of claim 5 already. As for the limitations that were not addressed in the previous office action, they were amended onto claim 5 by the applicant and will now be addressed:

Neither Olarig nor Rumpt1 disclose:

a. The user input is used by the encryption engine for encrypting data that is transmitted to the data storage media and for decrypting data that is retrieved from the data storage media.

However, Rumpt2 discloses:

b. The user input is used by the encryption engine for encrypting data that is transmitted to the data storage media and for decrypting data that is retrieved from the data storage media (Fig 1 and col 3, lines 17-59).

One of ordinary skill would be motivated to incorporate the teachings of Rumpt2 into the combination system of Olarig and Rump1 for the same reason given for claim 1.

As per claims 3-4, 6, and 17-18:

Olarig, Rumpt1, and Rumpt2 disclose all the limitations of claim 1. In addition, Olarig discloses all the limitations of claims 3 and 4 as indicated in a previous office action and claims 3 and 4 stand rejected. Further, claims 17 and 18 are identical to claims 3 and 4 respectively, and so are rejected on the same basis as claims 3 and 4 respectively.

Olarig and Rumpt1 disclose all the limitations of claim 6 as indicated in a previous office action.

Claim 18 is identical to claim 4, and so is rejected on the same arguments.

As per claims 13-14:

Olarig, Rumpt1, and Rumpt2 disclose all the limitations of claim 1. In addition, the rejection of claims 13-14 in view of Rumpt1 has been discussed in a previous office action and the claims stand rejected.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olarig et al (U.S. 6,032,257) and van Rumpt et al (U.S. 5,5132,262) in view of Hung et al (U.S. 5,343,525).

As per claim 2:

Olarig, Rumpt1, and Rumpt2 disclose all the limitations of claim 1. In addition, as a previous office action discusses how to Hung is applied in the rejection of claim 2.

3. Claims 7-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (U.S. 5,818,939) in view of Olarig et al (U.S. 5,5132,262) and van Rumpt et al (U.S. 5,231,662), herein referred to as Rumpt2.

As per claim 7:

A previous office action has addressed most of the limitations of claim 7 already. As for the limitations that were not addressed in the previous office action, they were amended onto claim 7 by the applicant and will now be addressed:

Davis discloses encrypting and decrypting, in the encryption hardware, user generated data with an encryption process that uses the generated cryptographic key (col 4, lines 36-55).

Davis does not disclose:

a. Receiving user input.

b. Generating a cryptographic key derived at least in part from the received user input and information that is stored in a non-erasable memory in said computer system during manufacture of said computer system.

However, Rumpt2 discloses:

c. Receiving user input (abstract; Fig 1; and col 3, lines 17-59).

d. Generating a cryptographic key derived at least in part from the received user input (Fig 1 and col 3, lines 17-59).

Further, Olarig discloses generating a cryptographic key derived at least in part from information that is stored in a non-erasable memory in said computer system during manufacture of said computer system (col 5, lines 25-65; col 8, lines 10-5; and col 9, lines 1-35).

One of ordinary skill at the time the applicant's invention was made would be motivated to combine the teachings of Rumpt2 into the system of Davis as it would allow for a different encryption key to be obtained for each sector of a hard disk, which further prevents unauthorized decipherment (Rumpt2: col 4, lines 1-5). One of ordinary skill would further be motivated to incorporate in Olarig's teachings as it would allow for

a method of theft protection for computers and computer related hardware (Olarig's abstract).

As per claim 8:

Claim 8 contains all the limitations of claim 7. In addition, the limitations of claim 8 are disclosed by Davis as indicated in a previous office action.

As per claims 9-10 and 12:

Claim 9 and 12 contain all the limitations of claim 7. In addition, the limitations of claim 9 and 12 are disclosed in a previous office action as applied to Davis in view of Rumpt2.

Claim 10 contains all the limitations of claim 9. In addition, the limitations of claim 10 are disclosed in a previous office action as applied to Davis in view of Rumpt2.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olarig et al (U.S. 6,032,257) and van Rumpt et al (U.S. 5,5132,262), herein referred to as Rumpt1, further in view of van Rumpt et al (U.S. 5,231,662), herein referred to as Rumpt2 and further in view of Davis (U.S. 5,818,939).

As per claim 15:

Olarig discloses in a personal computer having encryption hardware and a processor, a method of storing data on one or more magnetic or optical data storage media in an encrypted form comprising:

storing an identification code in a non-erasable memory during manufacture of the personal computer, wherein said identification code is defined at least in part by information associated with components of said personal computer (col 5, lines 25-65; col 8, lines 10-15);

retrieving the identification code from the memory in said personal computer (col 9, lines 1-10);

generating a cryptographic key derived at least in part from said identification code (col 9, lines 25-35);

Olarig does not explicitly disclose:

a. Receiving user input.

b. Generating a cryptographic key derived at least in part from the received user input.

c. Encrypting and decrypting data, for storage on and retrieval from one of said data storage media using said cryptographic key, wherein the data is transmitted by the processor and is encrypted in the personal computer by the encryption hardware, and wherein the encryption hardware is part of a bus-to-bus bridge circuit.

However, Rumpt2 discloses:

d. Receiving user input (abstract; Fig 1; and col 3, lines 17-59).

e. Generating a cryptographic key derived at least in part from the received user input (Fig 1 and col 3, lines 17-59).

One of ordinary skill at the time the applicant's invention was made would be motivated to combine the teachings of Rumpt2 into Olarig's system for the same reasons as for claim 1.

Further, Rumpt1 discloses encrypting and decrypting data, for storage on and retrieval from one of said data storage media using said cryptographic key, wherein the data is transmitted by the processor and is encrypted in the personal computer by the encryption hardware (col 3, lines 10-20 and col 2, lines 40-45). One of ordinary skill would incorporate Rumpt1's teachings, as it would allow for DES algorithm encrypted data to be written to and read from a hard disk.

Further, Davis teaches encryption hardware that is part of a bus-to-bus bridge circuit (col 4, lines 1-35). One of ordinary skill would incorporate Davis's teachings into the combination system of Olarig, Rumpt1, and Rumpt2 as it would allow for an electronic system with security functionality that optimizes performance of the system during cryptographic operations.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 8:00am-4:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PP

KIM VU
SUPERVISORY PATENT EXAMINER
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